

## TITLE: EXERCISER FOR STEP AND TWIST

### Field of the Invention

This invention relates to an exerciser, and more particularly to an exerciser with multiple exercising functions to step and twist at same time.

### 5 Background of the Invention

Due to the scientific development, the modern life is much easier. Many things can be done simply by push a button. Therefore, people do exercise less and gain much weight. When being aware of this, people start to go to the gym or have exerciser machines at home. However, most of the exercisers are too expensive. A pedal  
10 exerciser becomes a popular exerciser to most families.

A conventional pedal exerciser currently on the market has only one function to step up and down, and it is so tedious that can hardly attract consumers to buy.

### Summary of the Invention

It is the primary object of the present invention to provide an exerciser for step and  
15 twist, which provides a multiple function purposes of exercise.

It is another object of the present invention to provide an exerciser for step and twist, which is easy to operate.

It is a further object of the present invention to provide an exerciser for step and twist, which is cost effectiveness.

### 20 Brief Description of the Drawings

FIG. 1 is an exploded view of the present invention;

FIG. 2 is a side view of the present invention, partially sectioned;

FIG. 3 is a top view of the present invention;

FIG. 4 is a side view of the present invention showing the pedals in operation; and

25 FIG. 5 is a top view of the present invention depicting the swing device in operation.

## Detailed Description of the Preferred Embodiment

The present invention comprises a base 1 and a swing device 2.

The base 1 has a strut 11 at the front end to secure a handle thereon, a barrel 12 on the base behind the strut 11, a recess 13 at the rear end of the barrel 12 adapted to  
5 recess a bearing 14 therein, and a disc 15 in an arcuate shape behind the recess 13.

The swing device 2 comprises a post 21 at the front end to be inserted into the barrel 12 and a pair of pedals 22 secured to respective sides of the post 21. Each of the pedals 22 is connected with a cylinder 23 at the bottom end thereof. Each pedal 22 has an extension 24 protruding from the front bottom end. The swing device 2 further  
10 comprises a roller 25 with a spindle 251 inserted through the base of the swing device 2 and a gear 27 secured to the bottom of the spindle 251 to mesh with the teeth of the disc 15. An idle gear 26 is located in front of the roller 25. A cable 28 is wound along the roller 25 with the two ends connected to the extensions 24 of the pedals 22. The idle gear 26 produces a special force to prevent the cable 28 from rolling idle.

15 To assemble the present invention, as shown in FIGS. 2 and 3, the post 21 of the swing device 2 is inserted into the barrel 12 of the base 1. The swing device 2 is seated on the top of the bearing 14 of the base 1 with the gear 27 meshing with the teeth of the disc 15. When stepping on the pedals 22, the roller 25 rolls to bring the gear 27 to roll simultaneously along the teeth of the disc 15, which moves the pedals 22  
20 to right and left directions correspondingly.

To operate the present invention, as shown in FIGS. 4 and 5, a user stands on the two pedals 22 with both hands holding the handle on the strut 11 and steps the pedals 22 up and down. The pedals 22 activate the two cylinders 23 in such a manner that when the left pedal 22 is pushed, the left cylinder 23 will be pushed inwardly and the  
25 right pedal 22 at this moment is lifted up to pull the right cylinder 23 outwardly. The extension 24 at the left side pulls the cable 28 from a first end while a second end of the cable 28 is pulled by the first end of the cable 28, which in turn pulls the right pedal 22 to move upward, and the roller 25 is pulled to roll reversely, which links the gear 27

to roll simultaneously. Due to the gear 27 meshing with the teeth of the disc 15, the gear 27 rolls to the left of the base 1, causing the user to twist his/her body with the movement of the pedals 22. Vise versa, when the right pedal 22 is stepped down, the right cylinder 23, the cable 28, the roller 25, the gear 27, the disc 15 all link to move in a different direction and the pedals 22 moves to the right direction. By continuing these steps, the pedals 22 will move from left to right and left in sequence, which exercises the user's leg muscle and also trains the waist at same time.